

Claims

5 1. A method for creating extendable object-oriented code comprising:
 defining a data-type to include a base class and an additional properties
portion;
 defining the base class in terms of known properties; and
 reserving the additional properties portion for a future modification to the
data-type.

10 2. The method of claim 1, wherein the base class includes properties that are
capable of being understood by a plurality of interconnected devices.

15 3. The method of claim 2, further comprising creating a new data-type by
using an existing base class; and
 adding a new attribute to the additional properties portion.

20 4. The method of claim 3, wherein the additional properties portion comprises a
name-value pair.

25 5. The method of claim 2, further comprising defining the data-type to include a
type identifier that provides a unique identification for a data-type.

30 6. The method of claim 5, wherein the base class can be determined from the
type identifier by using a catalog that is maintained in each of the plurality of
interconnected devices.

35 7. The method of claim 6, wherein the method is implemented on a computer
system in a Java programming language.

40 8. A method for creating an extendable class-based shared data-type for use in
object oriented programming comprising:
 creating a first data-type comprising a first base class that includes initial
properties; and
 creating a second data-type comprising:
 the first base class; and
 a second additional properties portion having a new attribute.

45 9. The method of claim 8, wherein the first data-type further comprises a type
identifier that provides information about the first base class.

50 10. The method of claim 9, wherein the information is unique to the data-type and
can be used by a recipient to determine the properties of the data-type.

11. The method of claim 10, wherein the recipient can cross-reference the type identifier using a catalog to determine properties of the first base class.

12. The method of claim 8, wherein the first data-type further comprises a first additional properties portion.

5 13. The method of claim 8, wherein the new attribute is a name-value pair.

14. A software system comprising:

10 a storage medium; and

a software program stored on the storage medium for creating an extendable object-oriented data-type, wherein the data-type as comprises:

a base class that defines base characteristics of the data-type; and

15 an additional properties portion.

15. The software system of claim 14, wherein the data-type further comprises a type identifier.

16. The software system of claim 15, wherein the type identifier is unique to the data-type and provides information regarding the data-type.

17. The software system of claim 16, wherein the type identifier can be cross-referenced using a catalog to determine known characteristics of the data-type.

18. The software system of claim 17, wherein the additional properties portion is capable of holding a new attribute having a name-value pair.

20 19. The software system of claim 18, wherein the base class is known to a plurality of interconnected devices on which the software system is used.

20. The software system of claim 19, wherein the new attribute may not be known to at least one of the plurality of interconnected devices.